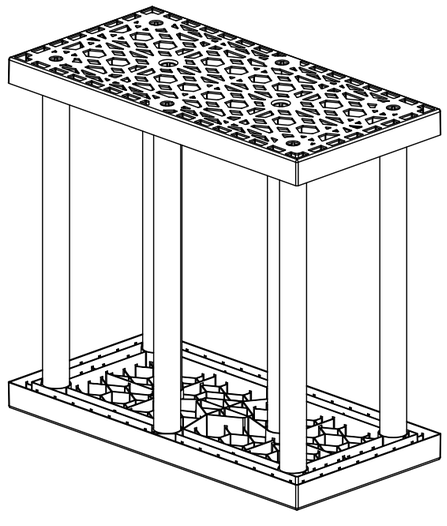
STORMTANK®

DRAWINGS

FOR

132 BINGHAM AVENUE

BOROUGH OF RUMSON,
MONMOUTH COUNTY, NJ



StormTank
A Brand of Brentwood Industries, Inc.
500 Spring Ridge Drive
Reading, PA 19610 U.S.A.
Ph: (610) 374-5109
www.StormTank.com
Info@StormTank.com

DRAWING INDEX:

Proposed Layout

(1,542) StormTank Module 25 Series Units - Model 2536
Module Footprint = 6,939.00 sf
Estimated Geotextile Fabric = 3,833.21 sy
Estimated Backfill Volume = 443.17 cy
Installed System Storage Volume (Excluding Stone) = 20,194.03 cf
Installed System Storage Volume (Including Stone) = 24,980.23 cf

Material Quantities

Platens	3,084
36" Side Panels	228
36" Columns	12,336
10" Observation Port Kit(s)	3

Elevations

Stone Invert	0.00
Module Invert	0.50
Top of Module	3.50
Top of Stone Backfill	4.50
Min. Finished Grade	5.50
Max. Finished Grade	11.50

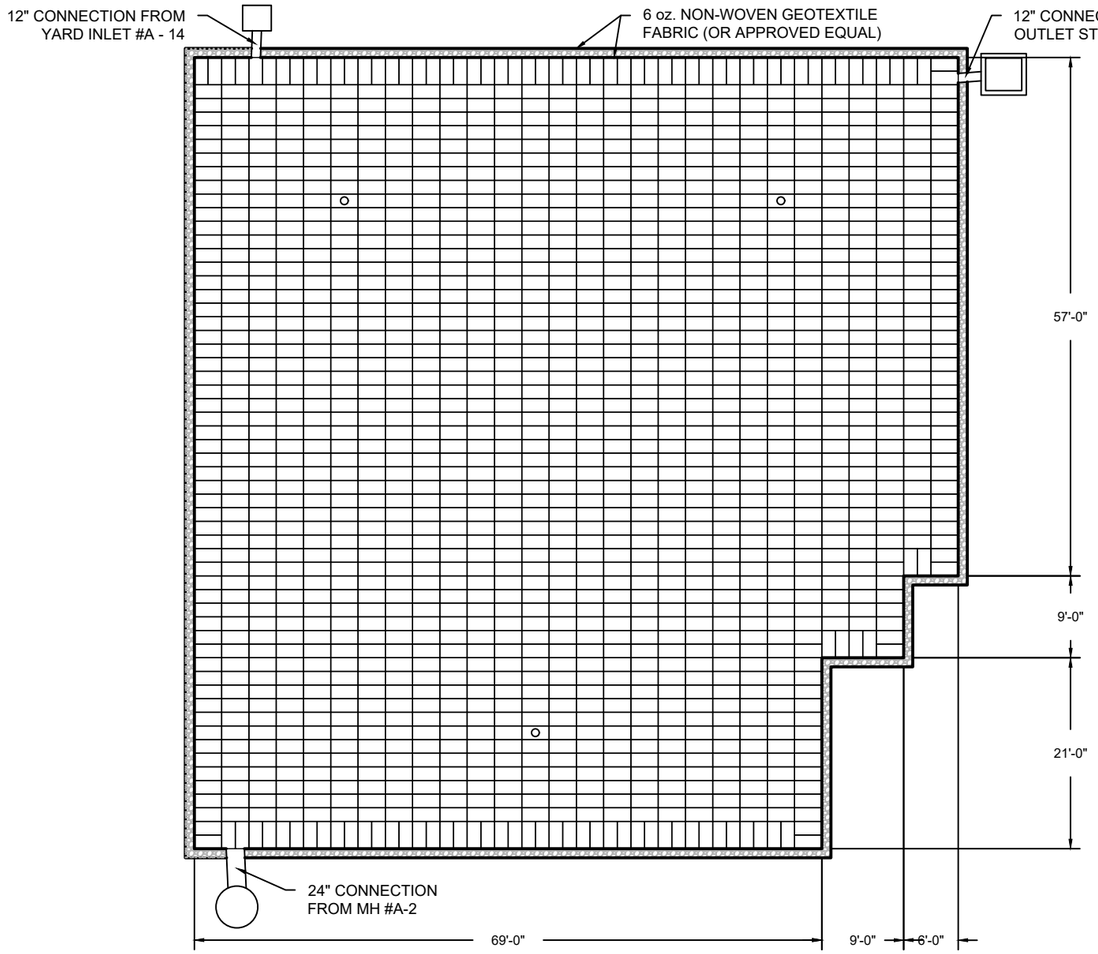
NOTES:

a. REFERENCE BRENTWOOD INDUSTRIES STANDARD DRAWINGS AND NOTES FOR DETAILED INFORMATION.
b. REFERENCE CURRENT INSTALLATION INSTRUCTIONS FOR PROPER INSTALLATION PRACTICES.
c. ENGINEER OF RECORD TO CONFIRM CONFORMANCE TO MANUFACTURER'S ALLOWABLE PROXIMITY TO OTHER STRUCTURES.
d. ALL INLET AND PIPE LOCATIONS AND DESIGNS BY OTHERS.
e. ALL STRUCTURES AND PIPES TO BE SUPPLIED BY OTHERS.
f. SYSTEM INVERT HAS NOT BEEN PROVIDED AND THEREFORE HAS BEEN SHOWN AT A ZERO ELEVATION AND IS TO BE DETERMINED BY THE ENGINEER OF RECORD
g. SYSTEM MUST MEET MIN. AND MAX. BURIAL AND COVER REQUIREMENTS. MAX BURIAL DEPTH FROM FINSHED SURFACE TO MODULE INVERT = 11FT, MINIMUM COVER FROM TOP OF MODULE TO FINISHED SURFACE = 2FT

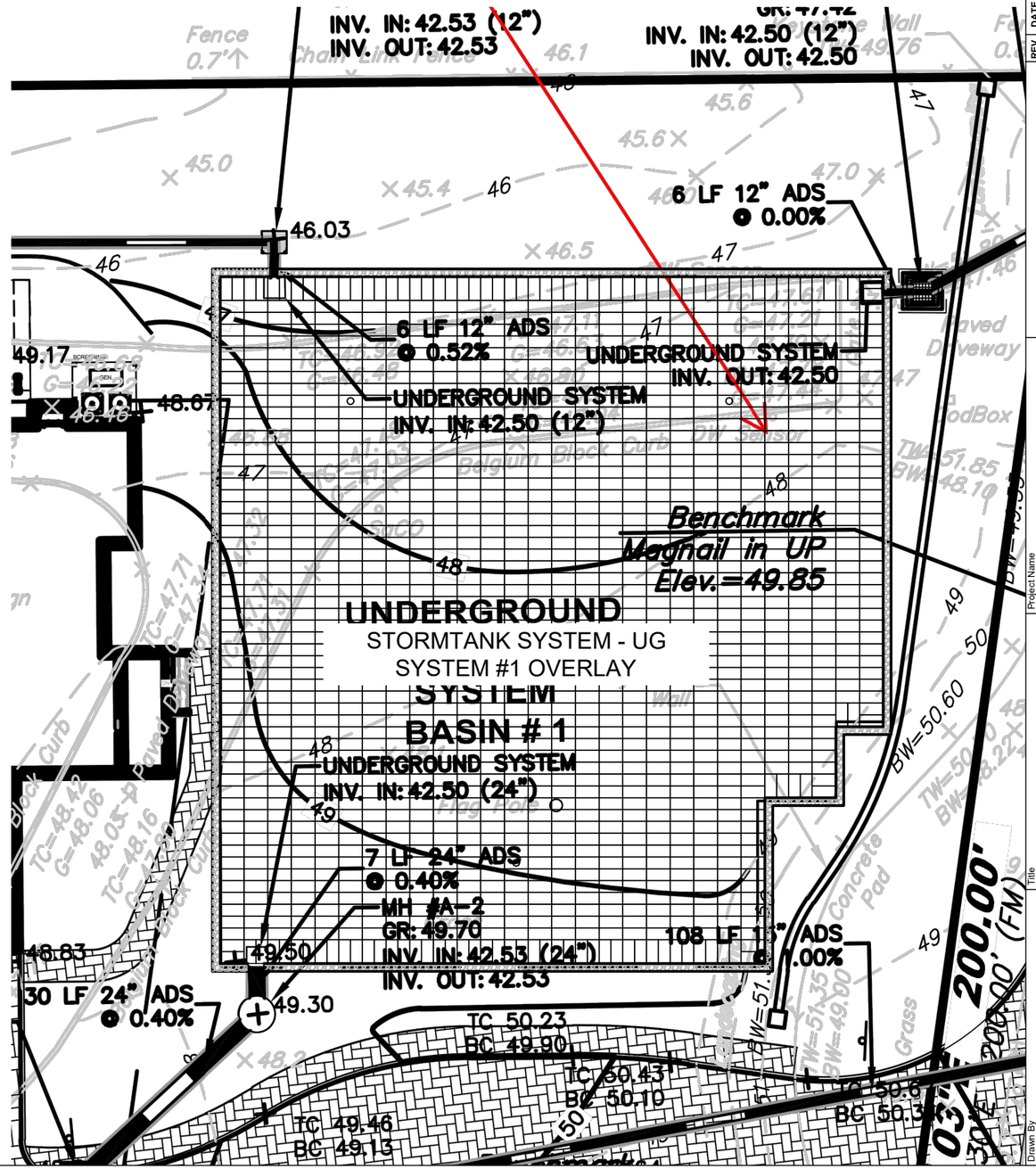
LEGEND

10" OBSERVATION PORT ○

¾" (19.5 mm) ANGULAR STONE



STORMTANK SYSTEM - UG
SYSTEM #1



REV.	DATE	RECORD OF CHANGES	BY
A	02/11/21	INITIAL RELEASE	BMK

StormTank
A Brand of Brentwood Industries, Inc.
500 Spring Ridge Drive
Reading, PA 19610
Phone: (610) 374-5109
www.StormTank.com
Info@StormTank.com

Project Name
132 BINGHAM AVE

Title
LAYOUT DRAWINGS

Drawn By
B. KESZCZYK

Date
02/11/2021

Project No.
21-0139

Scale
NTS

Sheet
1 of 5

Proposed Layout

(2,317) StormTank Module 25 Series Units - Model 2536
Module Footprint = 10,426.50 sf
Estimated Geotextile Fabric = 5,650.43 sy
Estimated Backfill Volume = 650.42 cy
Installed System Storage Volume (Excluding Stone) = 30,343.43 cf
Installed System Storage Volume (Including Stone) = 37,367.93 cf

Material Quantities

Platens	4,634
36" Side Panels	282
36" Columns	18,536
10" Observation Port Kit(s)	3

Elevations

Stone Invert	0.00
Module Invert	0.50
Top of Module	3.50
Top of Stone Backfill	4.50
Min. Finished Grade	5.50
Max. Finished Grade	11.50

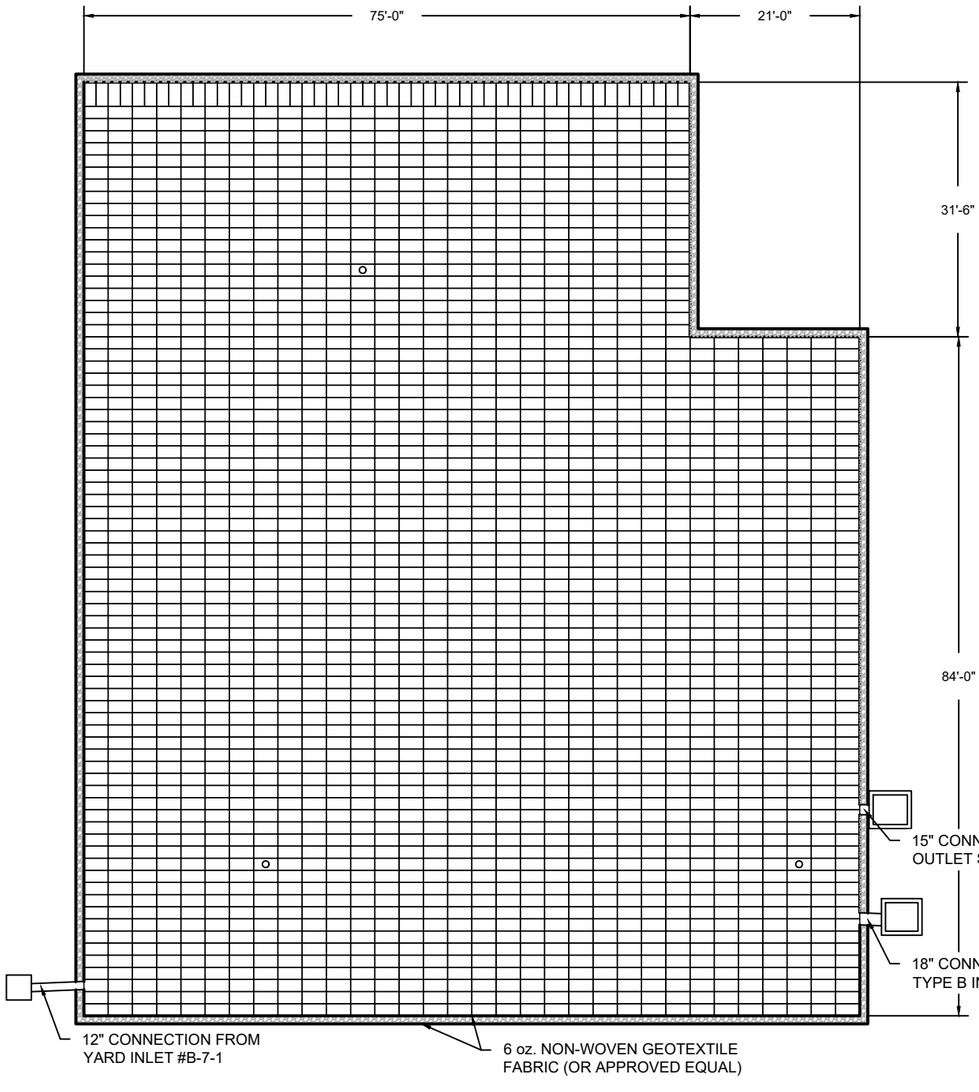
NOTES:

a. REFERENCE BRENTWOOD INDUSTRIES STANDARD DRAWINGS AND NOTES FOR DETAILED INFORMATION.
b. REFERENCE CURRENT INSTALLATION INSTRUCTIONS FOR PROPER INSTALLATION PRACTICES.
c. ENGINEER OF RECORD TO CONFIRM CONFORMANCE TO MANUFACTURER'S ALLOWABLE PROXIMITY TO OTHER STRUCTURES.
d. ALL INLET AND PIPE LOCATIONS AND DESIGNS BY OTHERS.
e. ALL STRUCTURES AND PIPES TO BE SUPPLIED BY OTHERS.
f. SYSTEM INVERT HAS NOT BEEN PROVIDED AND THEREFORE HAS BEEN SHOWN AT A ZERO ELEVATION AND IS TO BE DETERMINED BY THE ENGINEER OF RECORD
g. SYSTEM MUST MEET MIN. AND MAX. BURIAL AND COVER REQUIREMENTS. MAX BURIAL DEPTH FROM FINSHED SURFACE TO MODULE INVERT = 11FT, MINIMUM COVER FROM TOP OF MODULE TO FINISHED SURFACE = 2FT

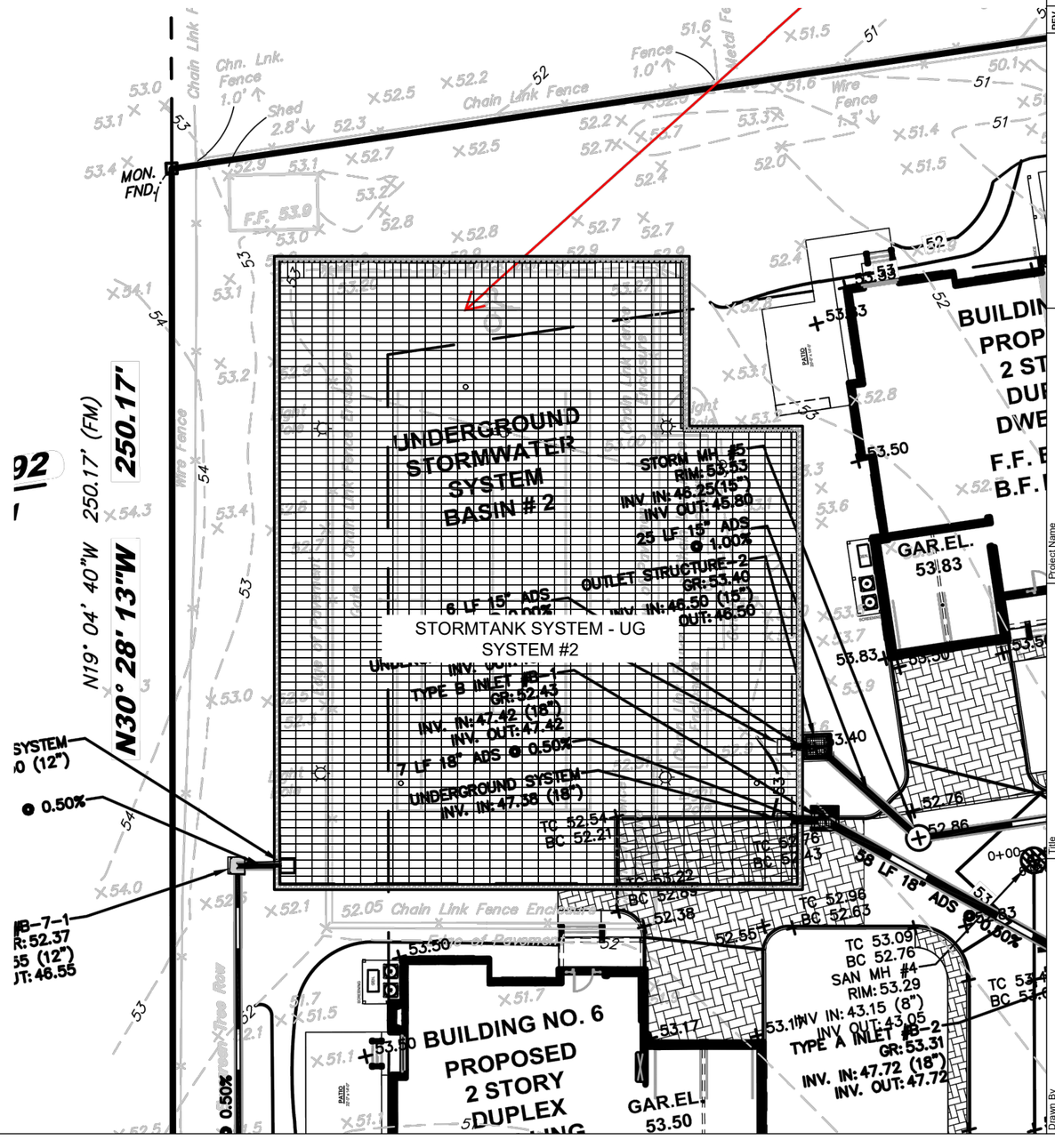
LEGEND

10" OBSERVATION PORT

¾" (19.5 mm) ANGULAR STONE



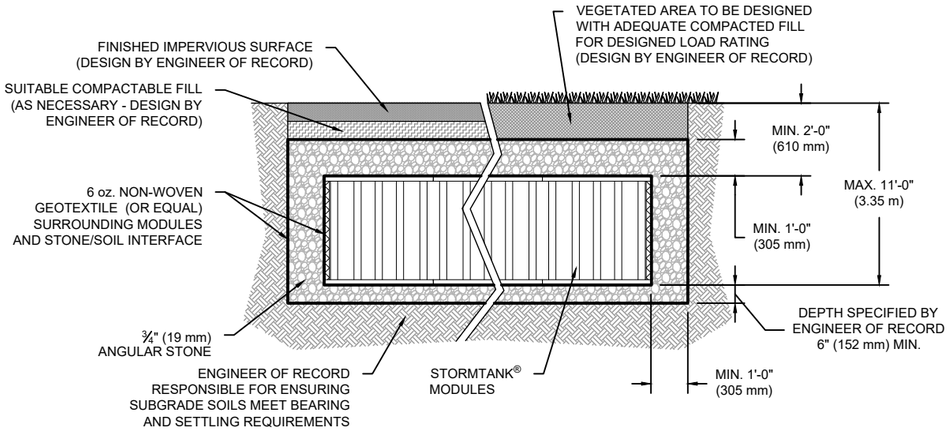
STORMTANK SYSTEM - UG
SYSTEM #2



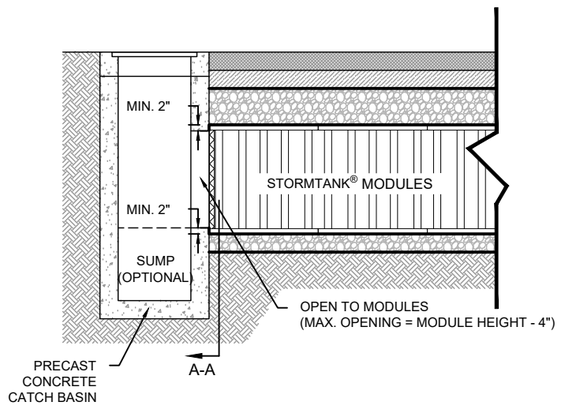
REV.	DATE	RECORD OF CHANGES	BY
A	02/11/21	INITIAL RELEASE	BMK

StormTank
A Brand of Brentwood Industries, Inc.
500 Spring Ridge Drive
Reading, PA 19610
Phone: (610) 374-5109
www.StormTank.com
Info@StormTank.com

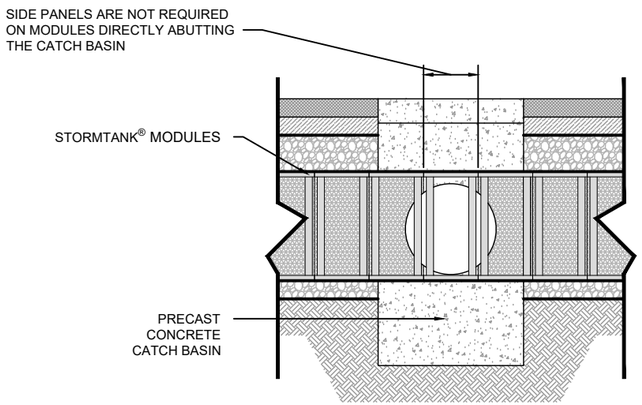
Drawn By: B. KESZCZYK
Date: 02/11/2021
Project No: 21-0139
Scale: NTS
Sheet: 2 of 5



TYPICAL SINGLE STACK INFILTRATION BASIN CROSS-SECTION

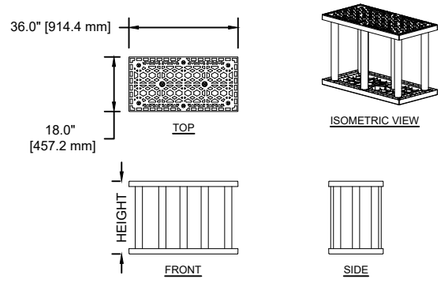


CROSS-SECTION



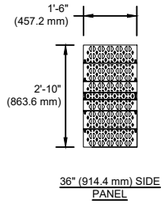
SECTION A-A

CATCH BASIN ABUTMENT DETAIL



MODULE DETAIL

25 SERIES MODULE				
MODEL	HEIGHT (mm)	CAPACITY (m^3)	NOMINAL VOID	NOMINAL WEIGHT (kg)
2536	36" (914.4)	13.096 cf (0.3714)	97.00%	33.10 lbs. (15.01)



36" (914.4 mm) SIDE PANEL

NOTES:
1. SIDE PANELS TO BE INSTALLED ALONG SYSTEM PERIMETER, UNLESS OTHERWISE SPECIFIED.
2. ALL HEIGHTS TO BE CUT FROM A 36" (914.4 mm) SIDE PANEL AT PRE-SCRIBED LOCATIONS, EXCEPT 33" (838.2 mm) & 12" (304.8 mm) SIDE PANEL.

SIDE PANEL DETAIL

REV.	DATE	RECORD OF CHANGES	BY
A	02/11/21	INITIAL RELEASE	BMK

StormTank
A Brand of Brentwood Industries, Inc.
500 Spring Ridge Drive
Reading, PA 19610
Phone: (610) 374-5109
www.StormTank.com
Info@StormTank.com

Project Name
132 BINGHAM AVE

Title
CONSTRUCTION DETAILS

Drawn By
B. KESZCZYK

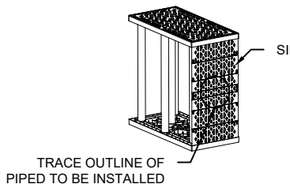
Date
02/11/2021

Scale
NTS

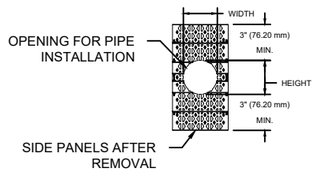
Project No.
21-0139

Sheet
3 of 5

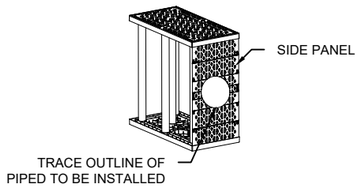
STEP 1:
LOCATE AND MARK OPENING



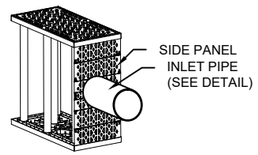
STEP 2:
REMOVE SIDE PANELS FROM MODULES AND CUT OPENING



STEP 3:
REINSTALL SIDE PANEL

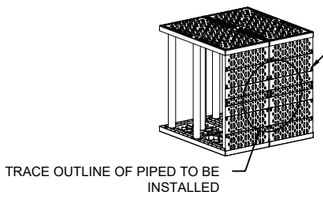


STEP 4:
INSERT PIPE (SLIP FIT) AND SECURE GEOTEXTILE FABRIC

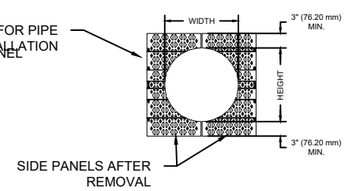


SINGLE PANEL OPENING

STEP 1:
LOCATE AND MARK OPENING

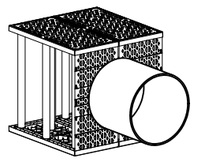


STEP 2:
REMOVE SIDE PANELS FROM MODULES AND CUT OPENING



STEP 3:
REINSTALL SIDE PANELS

STEP 4:
INSERT PIPE (SLIP FIT) AND SECURE GEOTEXTILE FABRIC

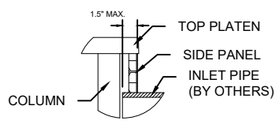


DOUBLE PANEL OPENING

DOUBLE PANEL OPENING

DIMENSION TABLE				
MODULE 20 SERIES	MODULE 25 SERIES	MAX. OPENING HEIGHT (mm)	SINGLE PANEL MAX. OPENING WIDTH (mm)	DOUBLE PANEL MAX. OPENING WIDTH (mm)
--	2512	6" (152.4)	15" (381.0)	30" (762.0)
2018	2518	12" (304.8)	15" (381.0)	30" (762.0)
2024	2524	18" (457.2)	15" (381.0)	30" (762.0)
--	2530	24" (609.6)	15" (381.0)	30" (762.0)
--	2533	27" (685.8)	15" (381.0)	30" (762.0)
2036	2536	30" (762.0)	15" (381.0)	30" (762.0)

PLASTIC PIPE CONNECTION DETAIL

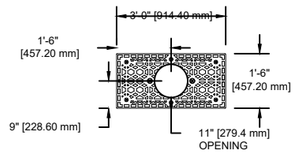


DETAIL

25 SERIES MODULE

STEP 1

PORT IS TO BE MARKED ONTO THE PLATEN AND THEN THE OPENING CUT INTO THE PLATEN USING A JIGSAW OR SAWZALL, BEING SURE TO STAY AS CLOSE TO THE PORT DIAMETER AS POSSIBLE.

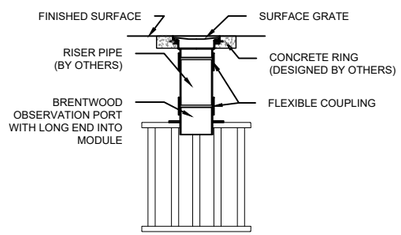


STEP 2

PLACE PORT INTO OPENING, ALIGNING PORT WITH STACKING PINS PLACED IN CUPS WITHIN THE PLATEN.

A MARK & CUT FLANGE PLATE FLUSH WITH MODULE SIDE "WHEN MODULE IS ON THE PERIMETER OF THE SYSTEM."

PORT INSTALLATION DETAIL



SINGLE STACK DETAIL
(25 SERIES)

SURFACE GRATE INSTALLATION DETAIL

REV.	DATE	RECORD OF CHANGES	BY
A	02/11/21	INITIAL RELEASE	BMK

StormTank
A Brand of Brentwood Industries, Inc.
500 Spring Ridge Drive
Reading, PA 19610
Phone: (610) 374-5109
www.StormTank.com
Info@StormTank.com

Project Name
132 BINGHAM AVE

Title
CONSTRUCTION DETAILS

Drawn By
B. KESZCZYK

Date
02/11/2021

Scale
NTS

Project No.
21-0139

Sheet
4 of 5

GENERAL CONDITIONS

- REVIEW INSTALLATION PROCEDURES AND COORDINATE THE INSTALLATION WITH OTHER CONSTRUCTION ACTIVITIES, SUCH AS GRADING, EXCAVATION, UTILITIES, CONSTRUCTION ACCESS, EROSION CONTROL, ETC.
- ENGINEERED DRAWINGS SUPERSEDE ALL PROVIDED DOCUMENTATION, AS THE INFORMATION FURNISHED IN THIS DOCUMENT IS BASED ON A TYPICAL INSTALLATION.
- WHEN INSTALLED BASED ON BRENTWOOD'S SITE PREPARATION AND INSTALLATION INSTRUCTIONS OR SIMILAR, A STORMTANK® SYSTEM CAN SUPPORT AN HS-25 LOAD.
- COORDINATE THE INSTALLATION WITH MANUFACTURER'S REPRESENTATIVE/DISTRIBUTOR TO BE ON-SITE TO REVIEW START UP PROCEDURES AND INSTALLATION INSTRUCTIONS.
- COMPONENTS SHALL BE UNLOADED, HANDLED AND STORED IN AN AREA PROTECTED FROM TRAFFIC AND IN A MANNER TO PREVENT DAMAGE.
- ASSEMBLED MODULES MAY BE WALKED ON, BUT VEHICULAR TRAFFIC IS PROHIBITED UNTIL BACKFILLED PER MANUFACTURER'S REQUIREMENTS. PROTECT THE INSTALLATION AGAINST DAMAGE WITH HIGHLY VISIBLE CONSTRUCTION TAPE, FENCING, OR OTHER MEANS UNTIL CONSTRUCTION IS COMPLETE.
- ENSURE ALL CONSTRUCTION OCCURS IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL LAWS, ORDINANCES, REGULATIONS AND SAFETY REQUIREMENTS.
- EXTRA CARE AND CAUTION SHOULD BE TAKEN WHEN TEMPERATURES ARE AT OR BELOW 40° F (4.4° C).

1.0 STORMTANK® ASSEMBLY

STORMTANK® MODULES:
STORMTANK® MODULES ARE DELIVERED TO THE SITE AS PALLETIZED COMPONENTS REQUIRING SIMPLE ASSEMBLY. NO SPECIAL EQUIPMENT, TOOLS OR BONDING AGENTS ARE REQUIRED; ONLY A RUBBER MALLET. A SINGLE WORKER CAN TYPICALLY ASSEMBLE A MODULE IN TWO MINUTES.

ASSEMBLY INSTRUCTIONS:

1. PLACE A PLATEN ON A FIRM, LEVEL SURFACE AND INSERT THE EIGHT (8) COLUMNS INTO THE PLATEN RECEIVER CUPS. FIRMLY TAP EACH COLUMN WITH A RUBBER MALLET TO ENSURE THE COLUMN IS SEATED.
2. PLACE A SECOND PLATEN ON A FIRM, LEVEL SURFACE. FLIP THE PREVIOUSLY ASSEMBLED COMPONENTS UPSIDE DOWN ONTO THE SECOND PLATEN, ALIGNING THE COLUMNS INTO THE PLATEN RECEIVER CUPS.
3. ONCE ALIGNED, SEAT THE TOP ASSEMBLY BY ALTERNATING TAPS, WITH A RUBBER MALLET AT EACH STRUCTURAL COLUMN UNTIL ALL COLUMNS ARE FIRMLY SEATED.

SIDE PANELS

4. IF SIDE PANELS ARE REQUIRED, FIRMLY TAP THE TOP PLATEN UPWARD TO RAISE THE TOP PLATEN. INSERT THE SIDE PANEL INTO THE BOTTOM PLATEN.
5. ALIGN THE TOP OF THE SIDE PANEL WITH THE TOP PLATEN AND FIRMLY SEAT THE TOP PLATEN UTILIZING A RUBBER MALLET.

GENERAL NOTES:

- REMOVE PACKAGING MATERIAL AND CHECK FOR ANY DAMAGE. REPORT ANY DAMAGED COMPONENTS TO A STORMTANK® DISTRIBUTOR OR BRENTWOOD PERSONNEL.
- STORMTANK® COMPONENTS ARE BACKED BY A ONE YEAR WARRANTY, WHEN INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

2.0 BASIN EXCAVATION

1. STAKE OUT AND EXCAVATE TO ELEVATIONS PER APPROVED PLANS. EXCAVATION REQUIREMENTS:
   a. SUB-GRADE EXCAVATION MUST BE A MINIMUM OF 6" (152 MM) BELOW DESIGNED STORMTANK® MODULE INVERT.
   b. THE EXCAVATION SHOULD EXTEND A MINIMUM OF 12" (305 MM) BEYOND THE STORMTANK® DIMENSIONS IN EACH LENGTH AND WIDTH (AN ADDITIONAL 24" [610 MM] IN TOTAL LENGTH AND TOTAL WIDTH) TO ALLOW FOR ADEQUATE PLACEMENT OF SIDE BACKFILL MATERIAL.
   c. REMOVE OBJECTIONABLE MATERIAL ENCOUNTERED WITHIN THE EXCAVATION, INCLUDING PROTRUDING MATERIAL FROM THE WALLS.
   d. FURNISH, INSTALL, MONITOR AND MAINTAIN EXCAVATION SUPPORT (E.G., SHORING, BRACING, TRENCH BOXES, ETC.) AS REQUIRED BY FEDERAL, STATE AND LOCAL LAWS, ORDINANCES, REGULATIONS AND SAFETY REQUIREMENTS.

3.0 SUB-GRADE REQUIREMENTS

1. SUB-GRADE SHALL BE UNFROZEN, LEVEL (PLUS OR MINUS 1%), AND FREE OF LUMPS OR DEBRIS WITH NO STANDING WATER, MUD OR MUCK. DO NOT USE MATERIALS NOR MIX WITH MATERIALS THAT ARE FROZEN AND/OR COATED WITH ICE OR FROST.

2. UNSTABLE, UNSUITABLE AND/OR COMPROMISED AREAS SHOULD BE BROUGHT TO THE ENGINEER'S ATTENTION AND MITIGATING EFFORTS DETERMINED PRIOR TO COMPACTING THE SUB-GRADE.

3. SUB-GRADE MUST BE COMPACTED TO 95% STANDARD PROCTOR DENSITY OR AS APPROVED BY THE ENGINEER OF RECORD. IF CODE REQUIREMENTS RESTRICT SUBGRADE COMPACTION, IT IS THE REQUIREMENT OF THE GEOTECHNICAL ENGINEER TO VERIFY THAT THE BEARING CAPACITY AND SETTLEMENT CRITERIA FOR SUPPORT OF THE SYSTEM ARE MET. *

** THE ENGINEER OF RECORD SHALL REFERENCE BRENTWOOD DOCUMENT APPENDIX A FOR MINIMUM SOIL BEARING CAPACITY REQUIRED BASED ON LOAD RATING AND TOP COVER DEPTH. MINIMUM SOIL BEARING CAPACITY IS REQUIRED SO THAT SETTLEMENTS ARE LESS THAN 1" THROUGH THE ENTIRE SUB-GRADE AND DO NOT EXCEED LONG-TERM 1/2" DIFFERENTIAL SETTLEMENT BETWEEN ANY TWO ADJACENT UNITS WITHIN THE SYSTEM. SUB-GRADE MUST BE DESIGNED TO ENSURE SOIL BEARING CAPACITY IS MAINTAINED THROUGHOUT ALL SOIL SATURATION LEVELS.*

4.0 LEVELING BED INSTALLATION

1. INSTALL GEOTEXTILE FABRIC AND/OR LINER MATERIAL, AS SPECIFIED.
   a. GEOTEXTILE FABRIC SHALL BE PLACED PER MANUFACTURER'S RECOMMENDATIONS.
   b. ADDITIONAL MATERIAL TO BE UTILIZED FOR WRAPPING ABOVE THE SYSTEM MUST BE PROTECTED FROM DAMAGE UNTIL USE.

2. AFTER THE GEOTEXTILE IS SECURED, PLACE A MINIMUM 6" (152 MM) LEVELING BED.
   a. MATERIAL SHOULD BE A 3/4" (19 MM) ANGULAR STONE MEETING APPENDIX B - ACCEPTABLE FILL MATERIAL.
   b. MATERIAL SHOULD BE RAKED FREE OF VOIDS, LUMPS, DEBRIS, SHARP OBJECTS AND PLATE VIBRATED TO A LEVEL WITH A MAXIMUM 1% SLOPE.

3. CORRECT ANY UNSATISFACTORY CONDITIONS.

5.0 STORMTANK® MODULE PLACEMENT

1. INSTALL GEOTEXTILE FABRIC AND/OR LINER MATERIAL, AS SPECIFIED.
   a. GEOTEXTILE FABRIC SHALL BE PLACED PER MANUFACTURER'S RECOMMENDATIONS.
   b. ADDITIONAL MATERIAL TO BE UTILIZED FOR WRAPPING ABOVE THE SYSTEM MUST BE PROTECTED FROM DAMAGE UNTIL USE.

2. MARK THE FOOTPRINT OF THE MODULES FOR PLACEMENT.
   a. ENSURE MODULE PERIMETER OUTLINE IS SQUARE OR SIMILAR PRIOR TO MODULE PLACEMENT.
   b. CARE SHOULD BE TAKEN TO NOTE ANY CONNECTIONS, PORTS OR OTHER IRREGULAR UNITS TO BE PLACED.

3. INSTALL THE INDIVIDUAL MODULES BY HAND, AS DETAILED BELOW.
   a. THE MODULES SHOULD BE INSTALLED AS SHOWN IN THE STORMTANK® SUBMITTAL DRAWINGS WITH THE SHORT SIDE OF PERIMETER MODULES FACING OUTWARD, EXCEPT AS OTHERWISE REQUIRED.
   b. MAKE SURE THE TOP/BOTTOM PLATENS ARE IN ALIGNMENT IN ALL DIRECTIONS TO WITHIN A MAXIMUM 1/4" (6.4 MM).
   c. FOR DOUBLE STACK CONFIGURATIONS:
      i. INSTALL THE BOTTOM MODULE FIRST. **DO NOT INTERMIX VARIOUS MODULE HEIGHTS ACROSS LAYERS.** BACKFILLING PRIOR TO PROCEEDING TO SECOND LAYER IS OPTIONAL.
      ii. INSERT STACKING PINS (2 PER MODULE) INTO THE TOP PLATEN OF THE BOTTOM MODULE.
      iii. PLACE THE UPPER MODULE DIRECTLY ON TOP OF THE BOTTOM MODULE IN THE SAME DIRECTION, MAKING SURE TO ENGAGE THE PINS.

4. INSTALL THE MODULES TO COMPLETION, TAKING CARE TO AVOID DAMAGE TO THE GEOTEXTILE AND/OR LINER MATERIAL.

5. LOCATE ANY PORTS OR OTHER PENETRATION OF THE STORMTANK®.
   a. INSTALL PORTS/PENETRATIONS IN ACCORDANCE WITH THE APPROVED SUBMITTALS, CONTRACT DOCUMENTS AND MANUFACTURER'S RECOMMENDATIONS.

6. UPON COMPLETION OF MODULE INSTALLATION, WRAP THE MODULES IN GEOTEXTILE FABRIC AND/OR LINER.
   a. GEOTEXTILE FABRIC SHALL BE WRAPPED AND SECURED PER MANUFACTURER'S RECOMMENDATIONS.
   b. SEAL ANY PORTS/PENETRATIONS PER MANUFACTURER'S REQUIREMENTS

NOTES:

- *IF DAMAGE OCCURS TO THE GEOTEXTILE FABRIC OR IMPERMEABLE LINER, REPAIR THE MATERIAL IN ACCORDANCE WITH THE GEOTEXTILE/LINER MANUFACTURER'S RECOMMENDATIONS.*

6.0 SIDE BACKFILL

1. INSPECT ALL GEOTEXTILE, ENSURING THAT NO VOIDS OR DAMAGE EXISTS; WHICH WILL ALLOW SEDIMENT INTO THE STORMTANK® SYSTEM.

2. ADJUST THE STONE/SOIL INTERFACE GEOTEXTILE ALONG THE SIDE OF THE NATIVE SOIL TO ENSURE THE GEOTEXTILE IS TAUGHT TO THE NATIVE SOIL.

3. ONCE THE GEOTEXTILE IS SECURED, BEGIN TO PLACE THE SIDE BACKFILL.
   a. MATERIAL SHOULD BE A 3/4" (19 MM) ANGULAR STONE MEETING APPENDIX B - ACCEPTABLE FILL MATERIAL.
   b. BACKFILL SIDES "EVENLY" AROUND THE PERIMETER WITHOUT EXCEEDING SINGLE 12" (305 MM) LIFTS.
   c. PLACE MATERIAL UTILIZING AN EXCAVATOR, DOZER OR CONVEYOR BOOM.
   d. UTILIZE A PLATE VIBRATOR TO SETTLE THE STONE AND PROVIDE A UNIFORM DISTRIBUTION.

NOTES:

- *DO NOT APPLY VEHICULAR LOAD TO THE MODULES DURING PLACEMENT OF SIDE BACKFILL. ALL MATERIAL PLACEMENT SHOULD OCCUR WITH EQUIPMENT LOCATED ON THE NATIVE SOIL SURROUNDING THE SYSTEM.*
- *IF DAMAGE OCCURS TO THE GEOTEXTILE FABRIC OR IMPERMEABLE LINER, REPAIR THE MATERIAL IN ACCORDANCE WITH THE GEOTEXTILE/LINER MANUFACTURER'S RECOMMENDATIONS.*

7.0 TOP BACKFILL (STONE)

1. BEGIN TO PLACE THE TOP BACKFILL.
   a. MATERIAL SHOULD BE A 3/4" (19 MM) ANGULAR STONE MEETING APPENDIX B - ACCEPTABLE FILL MATERIAL.
   b. PLACE MATERIAL UTILIZING AN EXCAVATOR, DOZER OR CONVEYOR BOOM (APPENDIX C - MATERIAL PLACEMENT) AND USE A WALK-BEHIND PLATE VIBRATOR TO SETTLE THE STONE AND PROVIDE AN EVEN DISTRIBUTION.
   DO NOT DRIVE ON THE MODULES WITHOUT A MINIMUM 12" (305 MM) COVER.

2. UPON COMPLETION OF TOP BACKFILLING, WRAP THE SYSTEM IN GEOTEXTILE FABRIC AND/OR LINER PER MANUFACTURER'S RECOMMENDATIONS.

3. INSTALL METALLIC TAPE AROUND THE PERIMETER OF THE SYSTEM TO MARK THE AREA FOR FUTURE UTILITY DETECTION.

NOTES:

- *IF DAMAGE OCCURS TO THE GEOTEXTILE FABRIC OR IMPERMEABLE LINER, REPAIR THE MATERIAL IN ACCORDANCE WITH THE GEOTEXTILE/LINER MANUFACTURER'S RECOMMENDATIONS.*

8.0 SUITABLE COMPACTABLE FILL

FOLLOWING TOP BACKFILL PLACEMENT AND GEOTEXTILE FABRIC WRAPPING; COMPLETE THE INSTALLATION AS NOTED BELOW.

VEGETATED AREA

1. PLACE FILL ONTO THE GEOTEXTILE.
   a. MAXIMUM 12" (305 MM) LIFTS, COMPACTED WITH A VIBRATORY PLATE OR WALK BEHIND ROLLER TO A MINIMUM OF 90% STANDARD PROCTOR DENSITY.
   b. THE MINIMUM TOP COVER TO FINISHED GRADE SHOULD NOT BE LESS THAN 24" (610 MM) AND THE MAXIMUM DEPTH FROM FINAL GRADE TO THE BOTTOM OF THE LOWEST MODULE SHOULD NOT EXCEED 11' (3.35 M).

2. FINISH TO THE SURFACE AND COMPLETE WITH VEGETATIVE COVER.

IMPERVIOUS AREA

1. PLACE FILL ONTO THE GEOTEXTILE.
   a. MAXIMUM 12" (305 MM) LIFTS COMPACTED WITH A VIBRATORY PLATE OR WALK BEHIND ROLLER TO A MINIMUM 90% STANDARD PROCTOR DENSITY OR TO MEET THE ENGINEER OF RECORD'S SPECIFICATION.
   b. SUB-BASE MATERIALS SHOULD BE REFERENCED BY THE APPROVED ENGINEERING DRAWINGS.
   c. THE MINIMUM TOP COVER TO FINISHED GRADE SHOULD NOT BE LESS THAN 24" (610 MM) AND THE MAXIMUM DEPTH FROM FINAL GRADE TO THE BOTTOM OF THE LOWEST MODULE SHOULD NOT EXCEED 11' (3.35 M).

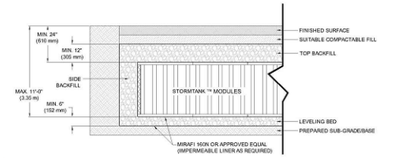
2. FINISH TO THE SURFACE AND COMPLETE WITH ASPHALT, CONCRETE, ETC.

NOTES:

- *A VIBRATORY ROLLER MAY ONLY BE UTILIZED AFTER A MINIMUM 24" (610 MM) OF COMPACTED MATERIAL HAS BEEN INSTALLED OR FOR THE INSTALLATION OF THE ASPHALT WEARING COURSE.*
- *IF DAMAGE OCCURS TO THE GEOTEXTILE FABRIC, REPAIR THE MATERIAL IN ACCORDANCE WITH THE GEOTEXTILE MANUFACTURER'S RECOMMENDATIONS.*

Appendix B - Acceptable Fill Materials

Material Location	Description	AASHTO M43 Designation	ASTM D2321 Class	Compaction/Density
Finished Surface	Topsoil, hardscape, stone, concrete or asphalt per engineer of record.	N/A	N/A	Prepare per engineered plans.
Suitable Compactable Fill	Granular well graded soil/aggregate, typically road base or earthen fill, maximum 4" particle size.	56, 57, 6, 67, 68 Earth	I & II III (Earth Only)	Place in max. 12" lifts to a min. 90% standard proctor density.
Top Backfill	Crushed angular stone placed between modules and road base or earthen fill.	56, 57, 6, 67, 68	I & II	Plate compacted to provide evenly distributed layers.
Side Backfill	Crushed angular stone placed between earthen wall and modules.	56, 57, 6, 67, 68	I & II	Place in uniform 12" lifts around the system
Leveling Bed	Crushed angular stone placed to provide level surface for installation of modules.	56, 57, 6, 67, 68	I & II	Plate vibrated to achieve level surface.
* See Appendix C - Material Placement for limitations				



Notes:

1. *All stone must be angular stone meeting ASTM D2321. Recycled concrete may be utilized when meeting acceptable gradation and ASTM standards.*
2. *The sub-grade is to be prepared to meet bearing and compaction requirements. Please see engineer of record's design.*
3. *Storage of materials such as construction materials, equipment, soils, etc. over the StormTank® system is strictly* ***prohibited****.*
4. *Please contact a Geotechnical Engineer and the Brentwood representative prior to utilization of any material not listed above.*

Appendix C - Material Placement Guidelines

Material Location	Placement Methods	Tired Equipment Limitations	Tracked Equipment Limitations	Roller Limitations
Finished Surface	Numerous methods may be utilized. Material dumping onto system should be limited unless otherwise noted.	Asphalt can be dumped into pavers.		Vibratory rollers may only be utilized if compacted cover exceeds 24" (610 mm) or for pavement installation.
Suitable Compactable Fill	Utilize an excavator, skid loader or dozer to place material. (Max. gross operating load of 6,000 lbs. [2,721 kg] or less).	No DUMPING by dump trucks. No wheel loads until approved by Engineer of Record.	SMALL DOZERS ONLY (Max. gross operating load of 6,000 lbs. [2,721 kg] or less).	Static rollers ONLY are permitted until compacted cover exceeds 24" (610 mm).
Top Backfill	Utilize excavator bucket or stone conveyor, positioned off of system, to uniformly backfill on top of the modules. No DUMPING directly onto modules by dump trucks.	No DUMPING by dump trucks. No wheel loads until approved by Engineer of Record.	Utilize an excavator or skid loader (Max. gross operating load of 6,000 lbs. [2,721 kg] once a min. 12" (305 mm) has been placed and compacted.	No rollers allowed at this time.
Side Backfill	Utilize excavator bucket or stone conveyor, positioned off of system, to uniformly backfill around modules. Stone to be placed in max. 12" (305 mm) lifts until stone reaches top of modules.	No equipment is permitted on the modules during the side backfilling process.		
Leveling Bed	No limitations			

Notes:

1. *Storage of materials such as construction materials, equipment, soils, etc. over the StormTank® system is strictly* ***prohibited****.*
2. *Please contact a Brentwood representative/distributor prior to utilization of any equipment not listed above.*
3. *During paving operations it may be necessary to utilize dump operations for paving equipment. Additional precautions should be utilized to limit the dump distance and prevent rutting of the road base.*
4. *It is recommended that all backfilling operations be completed with low ground pressure vehicles such as mini excavators, skid steers, etc.* **All** *equipment is to access system by a level approach to the system.*

REV.	DATE	RECORD OF CHANGES	BY
A	02/11/21	INITIAL RELEASE	BMK

StormTank
A Brand of Brentwood Industries, Inc.
500 Spring Ridge Drive
Reading, PA 19610
Phone: (610) 374-5109
www.StormTank.com
Info@StormTank.com

Project Name
132 BINGHAM AVE

Title
NOTES

Drawn By
B. KESZCZYK
Date
02/11/2021
Scale
NTS
Project No.
21-0139
Sheet
5 of 5